

Financial Sector Development
World Bank

The Use of “Asset Swaps” by Institutional Investors in South Africa

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World Bank Policy Research Working Paper 3175, December 2003

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Abstract

Leading financial economists have proposed the use of international asset swaps (Merton 1990, Bodie and Merton 2002) as a way of efficiently achieving international diversification without eroding the level of foreign exchange reserves and weakening local market development.

International asset swaps entail limited foreign currency flows (only net gains or losses need to be exchanged). They protect foreign investors from market manipulation and expropriation risk and have much lower transaction costs than outright investments.

But asset swaps are constrained by the attractiveness of local markets to foreign investors, and by various regulatory issues covering counterparty risk and collateral considerations, and accounting, valuation, and reporting rules.

Institutional investors are well developed in South Africa. Their total assets corresponded in 2001 to 159 percent of GDP, a level that was surpassed by only four high-income countries. But because of the imposition of exchange controls, they lacked international diversification. In July 1995 South Africa was the first developing country that explicitly allowed its pension funds and other institutional investors to make use of “asset swap.”

But the South African authorities did not authorize use of properly specified swap contracts as described by Bodie and Merton, but rather permitted institutional investors to “obtain foreign investments by way of swap arrangements.”

As Vittas argues in this paper, the asset swap mechanism turned out to be cumbersome and inefficient. However, it did allow institutional investors to attain some level of international diversification.

Other developing countries should consider authorizing their institutional investors to engage in international asset swaps. But they should authorize the use of properly designed swap contracts, preferably based on baskets of liquid securities, permit only global investment banks to act as counterparties, require use of global custodians, properly monitor credit risk, maintain adequate collateral, and adopt market-to-market valuation rules.

Asset swaps are clearly a second-best option compared to the lifting of exchange controls. However, they may facilitate risk diversification in the presence of such controls. And they may even have a role to play in their absence.

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* I am indebted to the South Africa Reserve Bank for communicating the full set of exchange control circulars and to various representatives of South African institutional investors for their insights on the structure of the financial and institutional investor landscape and the functioning of the swap arrangements. Several World Bank colleagues, particularly Patrick Honohan, Thordur Jonasson, Leora Klapper, Jeppe Ladekarl, and Sara Zervos, offered useful comments.

I. Introduction

Institutional investors, and especially pension funds and life insurance companies, are becoming major participants in the financial systems of a growing number of developing countries. In some cases, like Egypt, Malaysia or Sri Lanka, the sector is dominated by public agencies, but in several countries, including Argentina, Brazil, Chile, Cyprus, Hungary, Mauritius, and especially South Africa, private institutions play a prominent role in the accumulation of long-term financial resources. But in most developing countries, pension funds and other institutional investors operate under strict limitations on their foreign investments, mainly because of the shortage of foreign exchange reserves and the fear of capital flight as well as concerns about stimulating the development of local capital markets and the local economy in general. As a result, they are not allowed to diversify their country risk and build an adequate level of international diversification.

The use of international asset swaps has been proposed by leading financial economists (Merton 1990, Bodie and Merton 2002) as a way of efficiently achieving international diversification without eroding the level of foreign exchange reserves and weakening capital market development. In July 1995, South Africa was the first developing country that explicitly allowed its pension funds and other institutional investors to make use of asset swaps. However, the South African authorities did not authorize use of properly specified swap contracts as described by Bodie and Merton, but rather permitted institutional investors to “obtain foreign investments by way of swap arrangements” (hence, the presence of inverted commas in the title). This paper examines the use of these facilities. It discusses the operating modalities of the arrangements, the extent to which they met their objectives, the accounting and regulatory issues they raised, and the policy implications for other developing countries.

The structure of the paper is as follows. After this introduction, sections II reviews briefly the barriers to foreign investments. Section III offers a brief anatomy of international asset swaps, while section IV discusses their main benefits. Then, section V offers a detailed examination of the use of swap arrangements in South Africa, with an evaluation of the extent to which these facilities deviated from proper swap contracts.

Section VI concludes with an evaluation of policy implications for other developing countries. Sections V and VI pay special attention to accounting, regulatory and supervision issues. Two annexes provide some useful background information. The first covers the growth and structure of institutional investors in South Africa and the second reviews their asset allocation policies and the impact of evolving government policies on them.

II. Barriers to Foreign Investments

The imposition of exchange controls on investment in foreign assets affects the financial performance of pension funds and insurance companies. Such controls have an effect similar to that of prescribed investments in that they force contractual savings institutions to invest all their resources in domestic assets. Their rate of return may suffer if there are fewer investment opportunities in the local market. Exchange controls prevent an international diversification of risk and a reduction in the exposure of contractual savings institutions to domestic currency and market risk.

Pension funds and other institutional investors in most developing countries are not generally allowed to invest overseas. Even OECD countries until the early 1980s used to apply tight quantitative restrictions on overseas investments by local institutions.¹ The most common rationale for such restrictions is to reduce the risk of capital “flight”, especially institutionalized capital flight. Another rationale is that locally mobilized long-term savings, generated from contributions and premiums paid by or on behalf of local workers, should be invested “at home” to stimulate the development of local capital markets and enhance employment opportunities for those same workers rather than workers elsewhere. In some countries, restrictions on foreign assets had been justified on prudential grounds (since less was generally known about foreign assets) but globalization and the strengthening of financial regulation and supervision have weakened substantially the relevance of this factor (except for the expropriation threat).

Even in the absence of legal limitations on foreign investing by local institutional investors, there are other significant barriers. Among the most important are the risk of

¹ For a list of restrictions imposed by governments in OECD member countries, see OECD (2000).

expropriation by foreign governments (including heavier taxes imposed on foreign investors) and transaction costs. These costs can be so large that they may offset any diversification benefits that would otherwise accrue, especially when relatively low volumes of funds are involved.

International diversification improves the risk/return tradeoff of investment portfolios by reducing the exposure to cyclical and long-term structural shifts in local economic performance and by allowing participation in dynamic industries or regions in other parts of the world. International evidence shows that while the average rate of return may not increase as a result of international diversification, the average risk, measured by the volatility of returns, is substantially reduced (Davis 1993). International diversification is more important for smaller countries where the benefits of diversifying away from a small number of liquid securities are greatest.

In the 1970s, pension fund investments in foreign assets were very small, even in those few countries that did not impose exchange controls on overseas investments or strict limits on foreign assets of pension funds. But following the general relaxation of exchange controls in the 1980s and the growing globalization of capital markets, the share of foreign assets in pension fund portfolios increased considerably in a number of countries. In some countries, e.g. Hong Kong, overseas assets account for two-thirds of the total assets of pension funds. In most OECD countries, foreign investments have gradually grown over time and now represent between 25% and 30% of assets. In the US, where the large local economy is highly diversified and where presence of global corporations provide an indirect avenue of international diversification, overseas assets are less than 12% of total assets, although this still represents a significant increase over time. A similar indirect diversification is offered to Swiss pension funds by the large multinational Swiss companies (Queisser and Vittas 2000).

Removing exchange controls and fully integrating with international capital markets should be the ultimate objective of policy in all developing countries. However, complete removal of exchange controls is often constrained by the paucity of foreign exchange reserves and the fear of stimulating capital flight, especially if confidence in future stability is low. An alternative to complete and immediate removal of exchange

controls would be to authorize asset swaps between domestic and foreign institutional investors, especially pension funds. This would allow risk diversification while averting a capital flight. Another option would be to maintain exchange controls for general purposes, but permit contractual savings institutions to embark on a slow and gradual increase in their holdings of foreign securities. A third option would be to combine these two measures, i.e. allow a small amount of foreign investments as well as limited use of asset swaps.

III. Anatomy of International Assets Swaps

The basic mechanics of international asset swaps are easy to present.² Pension funds that already own domestic equities engage in a swap with a global pension intermediary, probably an investment bank with operations in London, New York, Hong Kong, Singapore, or other international financial center. The international swap counterparts must have very high credit ratings, or alternatively the swaps must be guaranteed by third parties with strong credit ratings, otherwise they would result in risk substitution rather than risk diversification.

In an equity swap, the total return per dollar on the domestic stock market is exchanged annually for the total return per dollar on a market-value weighted-average of the world stock markets. Equity swaps effectively transfer the risk of the domestic stock market to foreign investors and provide the local pension funds with the risk-return pattern of a well-diversified world portfolio. Since there are no initial payments between parties, there are no initial capital flows in or out of the country. Subsequent payments, which may be either inflows or outflows, involve only the difference between the returns on the two stock market indices. No principal amounts flow across the exchanges from the swap arrangements.

For example, on a notional or principal amount of \$1 billion, if, *ex post*, the world stock market earns 10 percent and the domestic market earns 12 percent, there is only a flow of $(.12 - .10) \times \$1 \text{ billion}$ or \$20 million out of the country. Furthermore, the local investors make net payments overseas precisely when they and their country can “best”

² This and the following section draw extensively on Bodie and Merton (2002).

afford it: namely, when the domestic market has outperformed the world markets. In those years in which the domestic market underperforms the world stock markets, the swap generates net cash flows into the country to the domestic investors. Hence, in this example, if the domestic market earns 8 percent and the world stock market earns 11 percent, then domestic investors receive $(.11 - .08) \times \$1 \text{ billion} = \30 million , a net cash inflow when local conditions are poor and foreign currency inflows may be highly desirable.

Equity swaps enable pension funds to achieve broader international diversification. A different type of swap could enable them to hedge equity risk altogether. This would be particularly important for people in countries where there is no local entity, including the government, capable of issuing fixed-income securities that are free of all risk. This second type of swap would call for the pension fund to swap the total return on its equity portfolio for a risk-free interest rate denominated in a “strong” currency or in units of constant purchasing power. This type of swap would work the same way as an equity swap, except that the net cash flows produced by the swap would result in the pension fund receiving a risk-free rate of return. The counterparty must have a very good credit rating, or the swap must be guaranteed by a third party with a strong credit rating. The local pension funds would have to make payments to the swap counterparty only in years when the local market outperforms the risk-free rate.

A third possibility is to swap the income stream from holdings of domestic bonds for the interest income (fixed or floating) of foreign bonds. Again local swap counterparts only make payments when the local bond market outperforms the international bond market.

IV. Benefits of International Assets Swaps

The general case for the use of international asset swaps by pension funds and other institutional investors has been strongly made by Merton (1990) and Bodie and Merton (2002).

The main benefits come from a significant improvement in the efficient frontier of risk versus expected return. The global equity markets can be used to achieve better

diversification and the global fixed-income markets can be used to achieve better hedging opportunities.³ This latter would be particularly important for people in countries where there is no local entity, including the government, capable of issuing fixed-income securities that are free of risk. Swapping the income stream from holdings of domestic bonds for the interest income (fixed or floating) of foreign bonds would be particularly attractive for countries that in addition to prohibiting their own institutional investors from investing overseas do not also allow foreign institutions to invest in the local bond market. The same benefits in terms of risk diversification and ease of transaction would accrue for both domestic and international portfolio investors interested in investments in the originating country.

As already mentioned, asset swaps have a limited effect on capital flows as no principal amounts are exchanged. Furthermore, local pension funds would have to make payments to the swap counterparty only in years when the local market outperforms the international markets and income generation in the local economy is high. Asset swaps of a long tenor could also provide some shield to the financial markets of developing countries from sudden adverse developments in the financial markets of major OECD countries. Asset swaps could offer some protection from sudden outflows of capital that could be triggered by the high volatility of sentiment among international fund managers and their susceptibility to herding behavior. This would be another reason favoring significant use of asset swaps even in a world that is free of foreign investment controls.

Asset swaps (equity as well as bond) may also be attractive to international portfolio investors if cross-border transactions in the underlying securities suffer from technical inefficiencies (e.g., no participation in international clearing arrangements or no possibility of transacting in book entry form⁴.) Moreover, asset swaps can also mitigate the other barriers to investing abroad — expropriation risk and high transaction costs.

³ Following the terminology of Bodie and Merton, diversification is used to mean an allocation of the portfolio among many risky assets, while hedging is used to mean eliminating risk by taking an offsetting position in another asset. In this terminology, substituting a risk-free asset for risky assets in the portfolio is hedging.

⁴ The use of interest rate swaps by foreign investors has recently grown in Iceland in connection with demand for housing bonds that pay inflation linked interest rates. Because Icelandic housing bonds are not registered with international clearing agencies (Asgeirsson 2002.), foreign investors prefer to enter into interest rate swaps with Icelandic institutions. The latter invest in indexed housing bonds which they then

With swap contracts, trading and ownership of actual shares remain with domestic investors⁵. By implication, the accounting and regulatory treatment remains a domestic issue. Foreign investors also benefit from the swap contract by avoiding the costs of trading in individual assets in the local markets and – for equity swaps – by not having the problems of corporate control issues that arise when foreigners acquire large ownership positions in domestic companies. Unlike standard cash investments in equities or debt, the default or expropriation exposure of foreign investors is limited to the difference in returns instead of the total gross return plus principal (in the above example, \$20 million versus \$1.02 billion).

The potential exposure of foreign investors to manipulation by local investors is also probably less for the swap contract than for direct transactions in individual stocks. It is more difficult to manipulate a broad market index than the price of a single stock. Even if settlement intervals for swaps are standardized at six months or one year, the calendar settlement dates may differ for each swap, depending upon the date of its initiation. Hence, with some swaps being settled every day, manipulators would have to keep the prices of shares permanently low to succeed.

Furthermore, with the settlement terms of swaps based on the per-period rate of return, an artificially low price (and low rate of return) for settlement this year will induce an artificially high rate of return for settlement next year. Thus, gains from manipulation in the first period are given back in the second, unless the price can be kept low over the entire life of the swap. Since typical swap contract maturities range from two to ten years (with semi-annual or annual settlements), this would be difficult to achieve.

Bodie and Merton show that international asset swaps can be used effectively and at reasonable cost to achieve the goal of improved international risk-sharing without violating restrictions on capital outflows to other countries. However, the practical availability of international asset swaps to institutional investors in developing countries

pledge as collateral security for repo loans from the central bank. Foreign investors pay the interest on the repo and earn the yield on the indexed bonds (Central Bank of Iceland 2003).

⁵ It is assumed in this discussion that pension funds and other institutional investors are only allowed to “swap” securities that they already hold. However, the swap market does not necessarily require that institutional investors hold the underlying securities. Trading “notional” values would achieve the same result.

heavily depends on the attractiveness, or investability, of the local markets for foreign investors. A forthcoming study by Ladekarl and Zervos (2003) draws attention to the investability criteria used by international investors. The study finds that good housekeeping and plumbing, implying sound macroeconomic policies, adequate data availability and transparency, and effective basic regulation and supervision, are prominent among the investability criteria used by global investment institutions. Aggarwal, Klapper and Wysocki (2003) also find that foreign institutional investors consider such country criteria as total market capitalization and returns as well as investor protection and legal enforcement. These findings imply that in developing countries that do not meet basic criteria of investability, domestic institutional investors may have to pay a significant premium to foreign investors in order to be able to conclude effective swap contracts. A very high premium would discourage local pension funds from engaging in this type of activity.

The use of international asset swaps also raises important questions that relate to accounting and regulatory issues, counterparty risk, and custodial and settlement arrangements. These aspects are discussed in sections V and VI after the presentation of the South African experience.

V. The Use of “Asset Swaps” in South Africa

Institutional investors, and especially the contractual savings sector, are very well developed in South Africa. The net assets of retirement funds and long-term insurers, after eliminating double counting, amounted in 2001 to ZAR 1.39 trillion or 142% of GDP (See Annex I). This was up from 119% of GDP in 1995. Adding the assets of unit trusts brings the total for institutional investors to ZAR 1.56 trillion in 2001, equivalent to 159% of GDP.⁶ Only four other countries in the world (the Netherlands, Switzerland, the United Kingdom, and the United States) have institutional investors that have more assets in relation to GDP than South Africa. The net flow into contractual savings (pension funds and long-term insurers), taking into account contributions and premiums as well as

⁶ Short-term insurers are not classified as institutional investors in South Africa. Their assets amounted to 4.6% of GDP in 2001.

investment income and after allowing for benefit outlays, administrative expenses and tax payments, amounted to an impressive 18% of GDP in 2001.

The asset allocation policies of institutional investors have been shaped by the use of prescribed asset ratios that favored public sector securities (before 1989) and by the imposition of exchange controls that prevented investments in overseas assets (Annex II). Insurance companies and pension funds were required until 1989 to place 53% of their untaxed liabilities and 33% of their taxed liabilities into fixed-interest-bearing public sector securities. The real return on those securities was substantially lower than that on listed equities. Although it was positive in real terms in the 1960s, it turned negative in the 1970s and 1980s when inflation accelerated to double digits. The foregone income loss on prescribed securities reached 6.1% in the 1960s, 16% in the 1970s and 5.8% in the 1980s. Taking into account their asset allocations, the investment return of long-term insurers was lower by 4.5 percentage points in the 1970s and 1.7 percentage points in the 1980s. The corresponding figures for pension funds were 7.8 and 2.6 percentage points, respectively (Annex II).

Prescribed ratios were abolished in 1989 and institutional investors proceeded to adjust their portfolios. By 1995, public sector claims represented 28% of total assets and equities 46%. Long-term insurers invested more in equities (56%) than self-administered private and official pension funds (30% and 12% respectively). However, foreign investments were still prohibited.

The South African authorities have long been aware of the lack of international diversification of the assets of local institutional investors and their exposure to the domestic equity market. The latter had increased considerably during the period of sanctions and divestment of foreign companies from South Africa (see Annex I). In March 1995, at the time of the abolition of the financial rand⁷, the budget statement alluded to the demand for foreign assets by various types of institutional investors to enable them to achieve a wider spread of their risks.

Chronology. In July 1995, in order to assist long-term insurance companies, pension funds and unit trusts in achieving this goal, the authorities decided to allow such

⁷ A specialized market in which holdings of foreign securities by SA residents were traded.

institutions to invest a portion of their assets abroad. However, taking into account the low level of foreign exchange reserves at the time, the authorities decided against permitting outright purchases of foreign currency for foreign investment purposes. Instead, they decided to allow institutional investors to “obtain foreign investments by way of swap arrangements”. These arrangements were required to provide for the actual exchange with foreign investors of part of their existing asset portfolios for foreign assets rather than for the traditional swap contracts described above. Special emphasis was placed on measures to safeguard the foreign exchange reserves against the subsequent withdrawal from South Africa of the reciprocal non-resident investments. The facility was seen as a further step in the process of gradually easing exchange controls (see Table 1 for a chronological summary of exchange control circulars).

A limit of 5% of total assets was initially applied. This was increased to 10% in June 1996. At that time, a limit for outright investments overseas was also introduced. This was equal to 3% of the net inflow during calendar 1995, but subject to an overall limit of 10% of total assets. In March 1997, an additional limit of 2% of the preceding calendar year’s net inflow was introduced for investments in securities listed on registered stock exchanges in SADC member countries, bringing the total limit for outright foreign investments to 5% of the net inflow. However, the total overall limit was kept unchanged at 10% of total assets. A clear definition of the net inflow of each type of institution was also provided (Table 2). For unit trusts, the relevant entity was changed to the unit trust management company and its total assets under management in South Africa. In July 1997, registered fund managers were authorized to use the asset swap mechanism but were not granted the cash flow dispensation.

In March 1998, the overall limit of foreign assets by way of swaps was raised to 15% of total assets, while the limit of outright foreign investments was increased to 5% of the preceding calendar year net inflow and that for investments in SADC countries to an additional 10% of the net inflow. In February 2000, the limit of 15% of the total assets of long-term insurers, pension funds and fund managers was unchanged but that for unit trusts was raised to 20%. In addition, the limit of outright foreign investments was raised to 10% of the preceding calendar year net inflow, with no separate limit for investments in SADC countries.

Table 1: Summary of Exchange Control Circulars

1995 07 14	New facility was introduced permitting institutional investors to obtain foreign investments by way of swap arrangements. Decision noted negligible country risk diversification of institutional investor assets of R500 billion as well as low level of foreign exchange reserves of R12.5 billion, hence the attractiveness of the asset swap mechanism. Authorization of individual transactions was required, based on application and approval, up to 5% of total assets. Mention was made of possible future allocation for outright foreign investments and reference to gradual easing of exchange control.
1996 06 21	Limit on investment in foreign assets by way of asset swaps was raised from 5 to 10% of total assets. Limit for outright foreign investments was introduced. This was set at 3 percent of net inflow during calendar 1995, but subject to overall limit of 10% of total assets.
1997 03 13	Limits of 10% of total assets for asset swaps and 3% of the net inflow during calendar 1996 for outright investments were renewed. Additional limit of 2% of net 1996 inflow was introduced for outright investments on registered stock exchanges in SADC member countries. The total overall limit was kept unchanged at 10% of total assets. Clear definition of net inflow was provided for each type of institutional investor. Also, for unit trusts, the relevant entity was changed to the unit trust management company and its total assets under management in South Africa.
1997 07 01	Definition of qualifying institutions for the asset swaps mechanism was broadened to include all registered fund managers offering private client asset management services.
1997 07 22	It was clarified that only asset swap transactions that did not involve a flow of funds would be permitted. Future transactions should be structured on the basis of an exchange of cash and/or a portfolio of assets.
1998 03 11	The overall limit of foreign assets by way of swaps was raised to 15% of total assets. The limit of outright foreign investments for long-term insurers, pension funds and unit trust management companies was raised to 5% of the net inflow during calendar 1997 while the limit of outright investments on registered stock exchanges in SADC countries was raised to 10% of net calendar 1997 inflow. Both flow limits were subject to the overall 15% asset limit.
1999 02 23	Dispensation and limits were renewed without change. Reference was made to applications for foreign asset swaps of R130 billion approved and R60 billion transacted up to the end of 1998.
2000 02 23	Limit of 15% of total assets was renewed for long-term insurance companies, pension funds and fund managers. It was raised to 20% for unit trust management companies. The definition of assets was broadened from total assets employed in South Africa to total assets. The limit of outright investments for long-term insurers, pension funds and unit trust management companies was raised to 10% of net calendar 1999 inflow, with no separate limit for investments in SADC countries, but subject to the respective asset limits.
2001 02 21	Reference was made to total foreign assets acquired under the asset swap mechanism amounting to R100 billion. However, the asset swap mechanism for new transactions was terminated. Total foreign assets were retained at 15% of total assets for long-term insurers, pension funds and fund managers and 20% for unit trust management companies. New foreign investments by long-term insurers, pension funds and unit trust management companies were, however, limited to 10% of the net calendar 2000 inflow, subject to the overall asset limits.
2001 11 13	The cash flow dispensation was extended to registered fund managers, who were authorized to make new foreign investments up to 10% of their net calendar 2000 inflow, subject to the 15% asset limit.

Table 2: Definition of Net Flow of Funds to Institutional Investors

Differences in the nature of the business of the various categories of institutional investors prevent the formulation of a unique definition of the net flow of funds to these institutions. Separate definitions for each of the three broad categories are therefore required.

For **long-term insurers**, the most accurate indication of their net inflow of funds is given by the concept “domestic current income surplus”. The definition is as follows:

Domestic current income surplus =
 Local current receipts, consisting of
 Investment income
 Premiums received (net of reinsurance locally and abroad)
 Pension and group life business
 Retirement annuities
 Other insurance business
less
 Current expenditure, consisting of
 Claims paid
 Lump sum at retirement
 Lump sum at death or other payments
 Annuities
 Surrenders (pension funds and other life business)
 Administrative expenses (including commissions)
 Taxation
 Dividend payments

For **pension and provident funds**, the most accurate indication of their net inflow of funds is given by the concept “domestic current income surplus”. The definition is as follows:

Domestic current income surplus =
 Local current receipts, consisting of
 Investment income
 Interest and dividends
 Rent
 Contributions by
 Members and
 Employers, including actuarial deficit reduction contributions
less
 Current expenditure, consisting of
 Benefits
 Lump sum at retirement or death
 Other lump sum payments
 Annuities
 Administrative expenses

For **unit trusts**, the most accurate indication of their net inflow of funds is given by the concept “value of net sales of units”. The definition is as follows.

Value of net sales of units =
 Gross sales valued at repurchase prices
less
 Repurchases at actual transaction value.

Finally, in February 2001, the asset swap mechanism was terminated but the limit on total foreign assets was retained at 15% of total assets for long-term insurers, pension funds and fund managers and 20% for unit trusts. New foreign investments were, however, still limited to 10% of the preceding calendar year net inflow. In November 2001, the cash flow dispensation was extended to registered fund managers, who were also authorized to make new foreign investments up to 10% of their net calendar 2000 inflow, subject to the 15% asset limit.

Institutional investors utilized the swap facilities to achieve some international diversification of their assets. The SARB indicated that ZAR 60 billion of asset swaps had been effected by February 1999 and the total reached ZAR 100 billion in February 2001. However, the foreign assets acquired through swap arrangements or outright have not been separately identified in the statistics published by SARB. For insurance companies, foreign assets are shown with other assets, while for pension funds, they are included with domestic equities or bonds, as the case may be. Data for long-term insurers show that between 1995 and 2001, other assets grew from 3.7% to 17.1% of assets.⁸ In general, market practitioners claim that institutional investors made full use of the permitted 15% limit by 2001.

The South African experience underscores the benefits of a gradual approach. In fact, both of the intermediate solutions mentioned in section II above were used. The authorities allowed limited use of asset swaps and permitted small but gradually increasing amounts of outright foreign investments as special limits for institutional investors. In this way, significant risk diversification was achieved, while averting a capital flight.

However, several questions arise with regard to the South African experience. How did the asset swap mechanism work? Who were the counterparties? What were the costs? How was settlement effected? What was the treatment of local equities that were also listed in overseas markets? Were there any collateral requirements and how was

⁸ As already noted, short-term insurers are not classified as institutional investors in South Africa and did not qualify for use of the asset swap mechanism. Their other assets also grew from 9.4% to 15.4% of their total assets between 1995 and 2001 but this must have been caused by other developments and not by acquisition of foreign assets.

collateral arranged? And, last but by no means least, what were the regulatory, accounting and reporting requirements?

Asset Swap Mechanism. Prior to entering into an asset swap transaction, approval had to be obtained from the South African Reserve Bank (“SARB”). Once approval was granted, the South African investor was able to source a foreign counterparty that was willing to purchase South African securities from the South African investor. The SARB did not impose any direct restrictions on foreign investors, but required from local institutions to ensure that either their original counterparties or some new counterparties remained invested in South African securities for a period of 2 years after concluding an asset swap transaction. This requirement was referred to as “**maintaining the inward leg**”. The South African investor, as part of its quarterly reporting to the SARB, had to confirm that the inward leg was still in place (during the 2-year period).

Counterparties. These were investment banks acting as either principals or agents, especially for mutual funds and pension funds with a global or emerging market mandate and who therefore had an appetite for South African assets. The counterparties would agree to buy a basket of securities from the South African investor, usually against a fee (although it was anticipated by SARB that the counterparty would also prefer to “swap” a basket of foreign securities and from there the term “asset swap”).

Costs. Due to the inward leg requirement that aimed to ensure that counterparties remained invested in South African securities for a period of 2 years, asset swaps were usually done at a discount or for the payment of an arrangement fee payable to the counterparty. Initially the discount or some sort of “arrangement fee” was fairly high at around 2% – 2.5% of the market value of the basket of South African securities and may even have reached 5%. But as more counterparties entered the market and based on the size of the basket and the specific securities included in the basket, the discount or fee was negotiated down and more or less stabilized at 1%. Some European investment banks even arranged swaps without requiring any fee. This was probably because these investment bankers were able to charge their pension fund and mutual fund customers double brokerage fees for acquiring South African assets: once for the underlying bond or

share purchase, once for the "asset swap". One reason for the low fees was that these were big block transactions which large local institutions were able to put through from their own portfolios without affecting market price. Thus, the foreigners obtained the assets much cheaper than if they had to use the open market. However, obtaining their assets through swap arrangements rather than directly on the market would imply a smaller “additional net” benefit for the South African economy and markets from the swap arrangements.

Settlement Procedures. Settlement initially took place by the South African investor’s custodian transferring the assets to the counterparty’s South African custodian upon payment of the consideration to the South African investor’s custodian – normal DVP rules applied. Once the consideration was received, the South African investor applied to the SARB again for approval to transfer the consideration abroad. Once this was received, usually within a few days, the consideration was transferred abroad. A portfolio of securities had to be acquired within a reasonable period. Later on the requirement that settlement of the consideration had to take place in South Africa was removed, as it was evident that the resultant currency transfers affected the exchange rate, which was usually to the detriment of the South African investor. Settlement was then effected through the South African investor’s foreign bank account. In fact, the rules were tightened in July 1997 and only permitted asset swap transactions that did not involve a flow of funds and were structured on the basis of an exchange of cash and/or a portfolio of assets.

Treatment of Foreign Listed Local Equities. Shares that were dually listed on the Johannesburg Stock Exchange (JSE) and a foreign exchange were treated as South African securities if purchased in the local market and as foreign securities if purchased overseas. However, local institutional investors were seeking to diversify their exposure away from the JSE and were interested to include in their foreign baskets companies that were not heavily exposed to the local economy.

Collateral Requirements. No specific collateral requirements were applied. Global custodians were appointed to facilitate the settlement process but since the “asset swaps” were not genuine swap contracts, there were no special collateral rules. The

binding jurisdiction when entering into the asset swap was always specified as South Africa.

Regulatory, Accounting and Reporting Requirements. Institutional investors had to provide the SARB with a quarterly report detailing their total assets, total foreign investments (limited to 15% of total assets) and the asset swaps entered into during the previous quarter (later on as things developed, the SARB was willing to approve a generic asset swap application in terms of which the South African investor was able to pre-apply for block approval in anticipation of future asset swaps). Apart from the requirement to report to the SARB on a quarterly basis and the regular reports that must be submitted to leading regulators, there were no other special reporting or accounting requirements. No special rules were provided regarding the accounting treatment. The foreign assets acquired directly or through the swaps had to be valued according to market value or acquisition value, following the same rules that were applied on domestic assets for the particular type of institution. The discount or arrangement fee had to be expensed in the income statement. In its statistical reports, the SARB did not identify separately the holdings of foreign assets of different types of institutional investors.

Evaluation. The swap arrangements that were used in South Africa were a long way from the swap contracts envisaged by Bodie and Merton. They were cumbersome and proved difficult to monitor. They were designed to protect the foreign exchange reserves but faced serious problems of enforcement. Unlike in the case of swap contracts, principal amounts did initially cross the exchanges, giving rise to large foreign exchange transactions, although later on asset swap transactions were not allowed to involve a flow of principals across the exchanges. Protection of principal from expropriation risk was not ensured and the swap business could not itself be available for subsequent trading on the market. These swap arrangements did not lend themselves to a development of swap market liquidity.

The foreign investors were supposed to inform the South African institution whenever they were selling the assets they had acquired as part of the "asset swap". But foreign institutions were not in practice bound by the SARB rules in this regard and were unlikely to have complied with this requirement. When the rand came under pressure, it

is likely that most, if not all, of the asset swap counterparties proceeded to sell their South African assets. Since nobody was officially informed of this, the South African institutions were not asked to repatriate their leg of the deal nor were they obliged to find new counterparties. SARB inspectors undertook ad hoc spot checks on some of the larger local investors, but did not verify on a systematic basis that the foreign counterparties continued to be invested in South African securities. Some commentators have argued that it would have been better to allow the South African institutions to diversify internationally gradually and directly and without the artificial business of bringing in foreign counterparties which de facto became hot money that rushed for the exit when conditions deteriorated.

Despite these misgivings and cumbersome operational characteristics, the swap arrangements allowed institutional investors to achieve a 15% level of international diversification. Institutional investors continued to be allowed to invest overseas up to 10% of future net inflow but the potential impact of this rule was constrained by the overall limit of 15% of total assets, which most institutions had already reached.

The authorities failed to authorize a continuation of swap arrangements for a total of, say, 10% of assets, allowing a combined total diversification of 25% of assets (15% outright and 10% through swaps). Given the cumbersome nature of the arrangements then in use, they could have encouraged use of proper swap contracts in extending the facility. The decision not to extend the facility and not to use proper swaps is puzzling because there are at least 40 South African companies that are included in the MSCI Emerging Markets Free Index, while 68 out of 74 US emerging market mutual funds invest in South African firms (Aggarwal et al 2003). There is also a large number of European mutual funds that invest in South African securities. Thus, demand for properly designed swap contracts would most likely have been forthcoming.

The South African experience also underscores the importance of an effective regulatory framework, especially with regard to reporting and accounting requirements. Given the cumbersome nature of the swap arrangements, the reporting requirements were difficult to monitor. However, the system was adapted over time and block approval

arrangements were introduced. Use of proper swap contracts would have made both reporting requirements and verification of compliance much easier.

The swap arrangements did not have any implications for accounting records since local institutional investors exchanged their domestic assets for foreign ones and had to value the latter according to prevailing valuation rules. The inward leg requirement did not appear on their balance sheet. If proper swap contracts were to be used, there would be a need for a more specified accounting treatment. The local institutions would continue to own the “swapped” domestic assets. In accounting terms, these could be reported with other domestic assets, with a footnote noting the fact that they have been swapped and their value on the basis of foreign market values. Alternatively, swapped assets could be shown separately at their foreign market value. The income statement would have to indicate the net gain or loss arising from the swap.

For statistical purposes, the volume of swapped assets should be reported separately as should any holdings of foreign assets. In this sense, the SARB practice of including foreign assets with other assets in the case of insurance companies and with domestic equities or bonds in the case of pension funds has failed to reveal valuable information.

Proper swaps are over-the-counter (OTC) instruments that are traded outside organized exchanges. This presents advantages as well as disadvantages. On the one hand, they are subject to less regulation with regard to capital requirements, conduct rules, and loss sharing arrangements in case of default and enjoy considerable flexibility in customization. But, on the other hand, they suffer from greater exposure to counterparty risk and require marked-to-market valuation with effective monitoring and adequate collateralization. These disadvantages can be greatly reduced by use of counterparties with top level credentials and reliance on standardized contracts subject to well established enforcement procedures (Ladekarl and Svennesen 1999, Draghi, Giavazzi and Merton 2003).

VI. Conclusions and Policy Implications

Pension funds and other institutional investors in developing countries are constrained in achieving broad international diversification by strict controls on foreign investments. These controls are motivated by the desire to prevent capital flight and preserve scarce foreign exchange reserves. It is also sometimes argued that requiring pension funds and other institutional investors to invest locally would stimulate the development of the local capital markets.

International asset swaps can be used to achieve international diversification while averting capital flight and stimulating local capital market development. As argued by Bodie and Merton (2002), the main benefits of asset swaps would come from a significant improvement in the efficient portfolio frontier facing domestic institutional investors. The global equity markets can be used to achieve better diversification and the global fixed-income markets can be used to achieve better hedging opportunities.

Faced with the challenge of allowing their institutional investors to attain greater international diversification when foreign exchange reserves are at a particularly low level, the South African authorities permitted local institutions to “obtain foreign investments by way of swap arrangements”. These turned out to be rather cumbersome and difficult to enforce, but even so they achieved their basic objective of greater diversification without capital flight.

However, the asset swap mechanism used in South Africa deviated considerably from the optimal features of swap contracts that have been underscored by Bodie and Merton. The main benefits of properly designed swap contracts are the ease of transactions, the avoidance of large foreign exchange transactions, the minimization of brokerage and other transaction costs, and the protection from expropriation and market manipulation risks.

Given the presence of 40 South African firms in the MSCI Emerging Markets Free Index (MSCI EMFI) and the existence of a large number of pension and mutual funds from Europe and North America with a strong interest to invest in South African

securities, the failure to use properly designed swap contracts is puzzling. Demand for such contracts would most likely have been forthcoming⁹.

There is some concern about regulatory, accounting and reporting issues. However, the experience of South Africa has shown that even with the more cumbersome arrangements used there, these issues have not presented a major problem. Ideally, asset swaps should be valued at market prices, they should be clearly indicated in the balance sheets of institutional investors, and reported separately in official statistics. Asset swaps are a second best compared to a complete lifting of exchange restrictions but they have a role to play even in the absence of exchange controls.

Policy makers in developing countries that would like to encourage their institutional investors to undertake (or expand) international diversification of their assets would need to take the following steps:

- First, the authorities should formally allow pension funds and other institutional investors to engage in international asset swaps. The authorization should specify an upper limit in relation to total assets and to net inflow over the preceding calendar year (15% of assets and 10% of net inflow would seem reasonable targets).
- Second, the authorities would need to specify the criteria of eligible counterparties, in terms of financial standing and experience, or even make up a list of such counterparties, drawn from the ranks of global investment banks with a good record of specialization and performance in this area. Requests for Proposals could be issued to elicit interest by such global investment banks and identify institutions that were willing to compete in the market.
- Third, the types of permitted asset swaps should be specified. Ideally, swaps involving market indices of liquid instruments would be recommended, including a global index plus a few regional ones. The maturity of asset swaps should be specified, starting with a minimum 2-year term and extending over time to up to 10 years.

⁹ Several other countries around the world meet criteria similar to South Africa. As of February 2002, Mexico had 22 firms in the MSCI EMFI, while 89 US emerging market mutual funds invested in Mexican firms. Brazil had 34 firms and also 89 mutual funds; Chile 22 firms and 69 mutual funds; Argentina 13 firms and 41 mutual funds; China 41 firms and 83 mutual funds; India 58 firms and 87 mutual funds; and Korea 76 firms and 98 mutual funds (Aggarwal et al 2003).

- Fourth, accounting and valuation rules should be specified. Ideally, swap contracts should be marked-to-market on a daily basis, even if settlement of net gains and losses is effected on a quarterly or half-yearly basis. Settlement should be effected at least half-yearly. Local institutions should be required to monitor the credit risk of their counterparties. Provisions could be included requiring settlement on a more frequent basis if the total amount of credit risk exceeds a specified threshold.
- Fifth, special collateral and custodian provisions should be established. The use of global custodians of high standing and the maintenance of adequate and appropriate collateral should be required. In special cases, the central bank could be authorized to act as the custodian, calculating market values and credit risk, holding collateral and even acting as a center point for all transactions until local institutions develop the required expertise to handle such transactions on their own.

Growth and Structure of Institutional Investors

Institutional investors, and especially the contractual savings sector, are very well developed in South Africa. The net assets of retirement funds and long-term insurers, after eliminating double counting, amounted in 2001 to ZAR 1.39 trillion or 142% of GDP (See Annex I). This was up from 119% of GDP in 1995. Adding the assets of unit trusts brings the total for institutional investors to ZAR 1.56 trillion in 2001, equivalent to 159% of GDP. Short-term insurers, which are not classified as institutional investors in South Africa, had assets of an additional 45 billion rand (4.6% of GDP). Only four other countries in the world (the Netherlands, Switzerland, the United Kingdom, and the United States) have institutional investors that have more assets in relation to GDP than South Africa. The net flow into contractual savings (pension funds and long-term insurers), taking into account contributions and premiums as well as investment income and after allowing for benefit outlays, administrative expenses and tax payments, amounted to an impressive 18% of GDP in 2001.

Table I.1: Institutional Structure

% of GDP	1995	1998	2001
Official Pension Funds	22.4	25.2	29.3
Self-Administered Private Pension Funds (SAPF)	31.6	31.5	39.4
Underwritten Private Pension Funds	34.2	30.2	35.2
Total Pension Funds	88.1	86.9	104.0
Long-Term Insurers (LTIs)	74.5	68.6	83.9
Less Underwritten Pension Funds	34.2	30.2	35.2
Less Insurance Policies of SAPF	9.3	9.3	11.0
Net Assets of LTIs	31.0	29.1	37.6
Total Pension Funds and LTIs	119.1	116.1	141.6
Unit Trusts	6.2	9.8	17.1
Total Institutional Investors	125.3	125.9	158.7
Short-Term Insurers	5.9	5.6	4.6
Grand Total	131.2	131.5	163.3
Grand Total (billion ZAR)	719.18	971.45	1605.03

Source: SA Reserve Bank

The institutional investor sector is dominated by long-term insurers if one focuses on the type of institutions that act as administrators and asset managers, but by retirement schemes if one focuses on the type of products that predominate. This reflects the extensive overlap that exists between retirement funds and long-term insurers. Another significant source of overlap exists between long-term institutions and unit trusts, but available statistics do not allow a separate estimation of the investments of pension funds and long-term insurers in unit trusts.

Both retirement funds and long-term insurers have benefited enormously from a very favorable tax treatment. Annual contributions to approved retirement schemes are deductible from taxable income, while the investment income of these institutions also benefits from favorable tax treatment. The tax incentives have additional significance in South Africa because of its relatively high marginal rates of personal income taxation.

The achievement of high rates of return relative to those available on bank deposits and the impressive record of innovation have also been important factors behind the growth of contractual savings. South African insurance companies claim to have invented and popularized unit-linked life and annuity policies (known as variable policies in the US).¹⁰ More recently, insurance companies have innovated with policies linked to serious illnesses. Competition is very intense, despite the concentrated structure of the industry. Premiums are regularly adjusted in response to changing market conditions on investment yields and competitive offerings.

The combined annual flow of contractual savings into retirement funds and life insurance companies amounted to just over ZAR 200 billion or 20.4% of GDP in 2001, underscoring the importance of the sector as a mobilizer of long-term savings. Because of the large size of their assets, pension funds and long-term insurers generate huge investment income. In 2001 this was slightly higher than the annual inflow from contributions.¹¹ On the other hand, the maturity of the schemes implies substantial annual

¹⁰ There may be some validity to this claim, at least with regard to the popularization of these policies. The first insurance executives, who promoted unit-linked policies in London in the late 1960s, came from South Africa. On the other hand, officials of TIAA-CREF are known to have promoted the use of variable annuity policies since the early 1950s.

¹¹ The estimate for investment income includes unrealized capital gains. The level of investment income fluctuates considerably from year to year, depending on the performance of equity and bond markets.

payments for benefits, including surrenders of life policies, lump sum payments on retirement, and regular payments from annuity policies and pension schemes. The total of these outflows amounted to ZAR 194 billion in 2001 or 19.7% of GDP. Allowing for administrative expenses and tax payments, the net inflow of funds into long-term insurers and pension funds equaled ZAR 181 billion or 18% of GDP.¹² The dominant role played by insurance companies is underscored in this table.

Table I.2: Annual Flows of Pension Funds and Long-Term Insurers, 2001

% of GDP	A	B	C	D
Official Pension Funds	1.54	1.35	3.77	3.86
Self-Administered Private Pension Funds (SAPF)	2.33	3.18	3.74	2.54
Long-Term Insurers (LTIs)	16.55	15.15	13.01	12.01
Total	20.42	19.69	20.53	18.41

Notes: A: Contributions and Premiums; B: Benefits; C: Investment Income;
D: Net Flows

Source: SA Reserve Bank

Retirement Funds. Three major trends characterized the evolution of pension funds in the last decade or so. The first has been the very large and rapid increase in the assets of official pension funds. From a very low level in the 1980s, official pension funds have grown to represent nearly 30% of the pension fund sector. Currently, the assets of the retirement fund sector are divided into three more or less equal parts: those administered by the Public Investment Commissioner; those administered by insurance companies; and those managed by self-administered funds.

Concentration in the retirement fund sector is quite high. The 10 largest pension funds, out of a total number of well over 15,000 schemes, account for nearly half the total assets of retirement funds. Nearly 90% of all retirement schemes are insured and administered by long-term insurers. Total membership of retirement schemes is estimated at over 10 million active members¹³ and close to 2 million pensioners.

In addition to the very rapid buildup of the assets of the official funds, another major trend has been the conversion of most retirement funds from defined benefit (DB)

¹² Readily available data, i.e. those included in the statistical bulletin of the Reserve Bank of South Africa, do not identify separately administrative expenses and tax payments. In general, operating costs of employer schemes are low. They are estimated at 6% of annual contributions or 0.30% of average assets. Long-term insurers incur higher costs, mainly because of their marketing effort.

¹³ Allowing for extensive double counting due to participation in multiple schemes, the true level of active membership may be closer to between 7 and 8 million workers.

to defined contribution (DC) plans. It is estimated that 90% of members and 60% of assets of self-administered funds are now covered by DC plans. However, the funds for civil servants as well as some large self-administered funds continue to operate DB plans.

Some retirement funds have introduced reasonable worker choice in the direction of investments in DC plans, a pattern that is already quite prevalent in the United States and Australia. Some of the available investment funds offer market-related returns, where the investment risk is assumed by employees, while others offer “protected” returns, where employees benefit from protection against downside risk but have less than full participation in the upside potential. Insurance companies have long operated similar schemes, offering either market linked products or “smoothed bonus” products.

The conversion process has been encouraged by the decision of some funds to distribute the existing large surplus, occasionally as high as 40%, to all active workers in proportion to their accumulated actuarial balance in the fund. In several cases, fund trustees or the sponsoring employers have sought to liquidate pension funds and transfer any surplus back to the employers. The distribution of pension surpluses is now regulated by an amendment to pension fund legislation.

Retirement funds provide both lump sum benefits and regular pensions. They are currently mostly well funded and do not seem to be exposed to huge financial risks. However, care is required to prevent a serious mismatch of assets and liabilities from arising and thus to avoid exposure to a major reinvestment risk, while diversification of country risk has been a major challenge in view of the continuing imposition of exchange controls on capital movements.

Long-term Insurers. Long-term insurers play a leading part in the system. They control 60% of the total assets of long-term institutions and 50% of the total assets of all institutional investors. Group pension business and individual retirement annuities account for 55% of total business. Concentration in the sector is very high. The two largest companies, which were demutualized in the late 1990s, control well over 60% of the market, while the largest five have over 90% of total assets.

Their annual premiums from all types of business, group pensions as well as individual life and annuity business, amounted in 2001 to 15.2% of GDP according to

statistics published by Sigma.¹⁴ This is by far the highest in the world. The next highest level is recorded in the UK with 10.7%, while Japan, South Korea and Switzerland hovered between 8% and 9% of GDP. Interestingly enough, in the US and Canada the corresponding levels were respectively 4.4% and 3% (Sigma 2002).

Long-term insurers may be divided into two main groups: risk insurers, which mainly offer protection policies to low-income groups (term life and disability insurance and/or funeral expenses) and investment insurers, which emphasize the investment part of the business. The former are dominated by black-owned or managed companies, such as African Life, that cater to the needs of low income groups and often engage in what might be termed “micro insurance”. The latter are further subdivided into companies that offer market-linked products (such as Liberty, which reportedly has over 70% of its policy liabilities in market-linked products) and more traditional insurers, where smoothed-bonus (profit participating) policies account for the majority of business (such as Old Mutual and Sanlam Life). Investment insurers are increasingly seen as collective investment institutions and their performance is compared, often unfavorably, with that of unit trusts and other asset management companies.

The life insurance industry has experienced some difficulties in recent years. Premium growth has slowed down, while investment returns have suffered sharp fluctuations. In addition, both operating expenses and lapse and surrender ratios have been rising. The growth in benefits has outstripped the growth in premium income.

Short-term Insurers. The non-life, short-term business, sector is less well developed than the life sector. The total premiums of short-term insurers amounted in 2001 to 2.8% of GDP¹⁵ and total assets to nearly 5% of GDP (Table 1). Over 40% of premiums are generated in motor insurance. Underwriting results experience the same cyclicity as in most countries with advanced insurance sectors. Concentration in the non-life sector is not as high as in life business. The three largest companies account for

¹⁴ The Sigma estimate is somewhat lower than the figure, reported in Table 2, that is derived from the Reserve Bank bulletin. However, differences of this order of magnitude are not uncommon.

¹⁵ This level is comparable to that of most OECD countries, apart from a few very advanced countries, such as Australia, Canada, the Netherlands, New Zealand, Switzerland, the UK, and the US, where the level of non-life premiums ranges between 3 and 4.5% of GDP (Sigma 2002)

32% of annual premiums. However, concentration is significantly higher than in most advanced OECD countries.

The main structural issue facing the non-life insurance sector is the deterioration in underwriting results that reflects growing competition from captive companies and high losses in the fire and motor business, partly as a result of growing crime, theft and road accidents.

Unit Trusts. Unit trusts and other collective investment institutions are less well developed than other institutional investors but, as in most countries around the world, they grew very rapidly during the 1990s (Fernando et al 2003). Their total assets amounted in 2001 to 17% of GDP, a level that was almost double that of 1998 and more than triple that of 1995 (Table 1). Unit trusts have over 3 million accounts but, because of extensive multiple account holding, the number of unit trust investors is likely to be much smaller.

Equities represent 53% of total assets with money market instruments accounting for 30% and public sector securities for 15%. The preference for equity funds reflects the impact of taxation as dividend income and capital gains are free from tax, but interest and rental income are taxed. Money market, index tracking, and funds of funds were only introduced in second half of the 1990s. The last two types still account for a very small proportion of total assets, but money market funds have experienced rapid growth. International funds have also expanded very fast.

Policy Challenges and Issues. Because of its large size and the role it is expected to play in meeting the long-term financial and retirement needs of a majority of South African households, the institutional investor sector is faced with several important challenges and policy issues. Considerable concern is frequently expressed about the macroeconomic implications of the large size of contractual savings and their impact on the rate of saving and economic growth as well as on the financing of small firms. Criticisms often include allegations that institutional investors engage in a "paper chase" that inflates stock market prices without any beneficial effects for the broader economy.

A related issue concerns the role that institutional investors can play in facilitating the transition to a more integrated society, following the momentous political

transformation of the mid-1990s. The sector has felt a strong pressure to adopt an active stance on facilitating the transition, especially in securing finance for black entrepreneurs and for capital-intensive initiatives, such as housing, schools and infrastructure projects. There has also been pressure for affirmative action both in recruitment of staff and in the provision of financial services.¹⁶

A more important issue that is linked to the primary objective of retirement schemes relates to the adequacy of their funding levels and the security of promised benefits. South African pension funds and long-term insurers generally enjoy strong financial positions with high funding levels and solvency margins. However, the sector has historically been prevented by the imposition of exchange controls from diversifying internationally and reducing its exposure to country risk. Moreover, because leading institutional investors bought out some of the stakes of departing foreign investors during the period of sanctions, their exposure to domestic industrial and commercial groups increased considerably in the 1980s. Exposure to inflated stock market prices could imply an overstatement of funding levels. A collapse, or even high volatility, of stock market prices could have undesirable implications for the ability of pension schemes to meet promised benefits. The close links between leading insurance companies and industrial and commercial groups also raise issues regarding the effectiveness and efficiency of corporate governance structures in South Africa.

Various structural changes in recent years, such as the unbundling of complex pyramidal holding structures and the gradual permission to invest in overseas assets, have alleviated the exposure of institutional investors to an over-concentration in country risk and to weak corporate governance structures. However, a greater diversification of risk assets as well as greater insulation from weak corporate governance structures is still required. A particular challenge is the achievement of greater country risk diversification in the context of the imposition of exchange controls on capital movements that may be justified for other reasons.

¹⁶ For a brief early discussion of these issues, see Vittas (1995). See also some of the studies referred in that paper, especially Jacobs (1992), Jacobs Committee (1992) and Mouton Committee (1992).

Asset Allocation

Before 1989 the asset allocation policies of institutional investors were shaped by the use of prescribed asset ratios that favored public sector securities and by the imposition of exchange controls that prevented investments in overseas assets. Insurance companies and pension funds were required until 1989 to place 53% of their untaxed liabilities and 33% of their taxed liabilities into fixed-interest-bearing public sector securities. The real return on those securities was substantially lower than that on listed equities. Although it was positive in real terms in the 1960s, it turned negative in the 1970s and 1980s when inflation accelerated to double digits.

Data contained in the Mouton Report (Mouton Committee 1992) show that the average nominal return on equities was 11.3% in the 1960s against 4.9% for prescribed assets and 3% for the inflation rate. Thus, prescribed investments earned a positive real return of 1.8%, but under-performed equities by 6.1%. In the 1970s, the nominal return on equities increased to 24.5%, but the return on prescribed assets rose to only 7.3% against an inflation rate of 11.3%, resulting in a negative real return of 3.6% and in a foregone income loss of no less than 16%. In the 1980s, the nominal return on equities fell to 20.1%, while the return on prescribed assets rose to 13.5%. However, as inflation accelerated further to 14.5%, prescribed assets continued to earn a negative real return of 0.9%. The foregone income loss was much reduced compared to the disastrous 1970s but still equaled 5.8%.

Estimates contained in the Jacobs report (Jacobs Committee 1992) show that life insurance companies held on average 29% of their assets in prescribed investments in the 1970s and 1980s so that the "wealth tax" on their assets, based on their negative returns, ranged from 1% in the 1970s to 0.3% in the 1980s. Pension funds invested 50% of their assets in prescribed investments in the 1970s and thus suffered a "wealth tax" equal to 1.8% per year, while in the 1980s their prescribed investments declined to 44% of their total assets and their "wealth" tax fell to 0.4% per year. On the basis of foregone income,

i.e. in relation to the returns they could have achieved by investing in equities, the "wealth tax" would have been much greater. For life insurers, it would have amounted to 4.5% in the 1970s and 1.7% in the 1980s and for pension funds to 7.8% and 2.6% respectively. Clearly, the use of prescribed assets had an adverse impact on the returns of insurance companies and pension funds. Dissatisfaction with their use, which had effectively transformed contractual savings into a captive source of government funding, led to their removal in 1989.

Following the abolition of prescribed asset ratios, pension funds and insurance companies lowered their holdings of public sector securities and increased their investments in corporate equities. By 1995, self-administered pension funds held 17% of their assets in public sector securities and 30% in equities, while they also placed another 30% with long-term insurers. Life insurance companies allocated 18% in public sector securities and no less than 56% in equities. Official pension funds continued to invest heavily in public sector securities, which represented 73% of their assets. Short-term insurers allocated 41% in equities, 18% in public sector securities and 22% in liquid assets. Finally, unit trusts placed 75% in equities, 11% in government bonds, and 13% in liquid assets (Table 3).

Table II.1: Asset Allocation, 1995

(% of total)	Official	Self-Admin	LTI	STI	UT	Total
Public Sector Claims	73.19	16.50	18.00	17.68	10.63	27.96
Private Sector Bonds & Loans	5.17	2.57	6.90	8.50	0.79	5.84
Equities	12.14	29.66	55.60	40.91	74.51	46.14
Liquid Assets	4.56	12.92	7.52	21.76	13.07	9.76
Property	1.66	5.59	8.29	1.72		6.41
Other Assets	3.28	3.15	3.69	9.42		3.89
Funds with Insurers		29.60				
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: SA Reserve Bank

Significant changes in asset allocation occurred between 1995 and 2001. The holdings of public sector securities of official pension funds fell dramatically to 48% of their total assets with corporate equities registering a large increase to 36% (up from 12% in 1995). Self-administered pension funds also raised their holdings of equities to 41% while, in sharp contrast, long-term insurers reduced their equity allocations to 46%. The category "other assets" of long-term insurers increased from 4% to 17%, while that of

short-term insurers rose from 9% to 15%. Investments in property of all types of institutional investors declined between 1995 and 2001. Unit trusts, reflecting the emergence of money market mutual funds, increased their liquid assets to 30%, while reducing their equity holdings to 53%.

Overall, institutional investors invested in 2001 47% of their assets in corporate equities, 20% in public sector securities, 9% in private sector debt instruments (corporate and mortgage bonds as well as various types of direct loans), 11% in liquid assets, 11% in other assets, and 3% in property. In the statistics published by the Reserve Bank holdings of foreign assets are not separately identified. In the case of pension funds, they are shown together with the corresponding domestic assets, while in the case of insurance companies they are classified with other assets.

Table II.2: Asset Allocation, 2001

(% of total)	Official	Self-Admin	LTI	STI	UT	Total
Public Sector Claims	48.02	10.80	13.36	12.46	15.03	20.02
Private Sector Bonds & Loans	8.70	6.92	10.13	4.05	1.70	8.73
Equities	36.29	40.54	46.22	37.77	52.60	46.62
Liquid Assets	4.69	7.07	8.05	29.03	29.85	10.62
Property	0.48	2.90	5.09	1.26		3.44
Other Assets	1.81	3.83	17.14	15.42		10.57
Funds with Insurers		27.94				
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: SA Reserve Bank

Since 1995 institutional investors have been allowed to invest in overseas assets, either directly or by way of swap arrangements. Most pension funds and long-term insurance companies proceeded to make full use of the permitted direct and indirect allocations in overseas assets, thus demonstrating that they were fully aware of the need to achieve a more optimal diversification of their risks.

An interesting feature of the South African financial landscape is the large role played by major institutional investors, not only in corporate governance but also in direct strategic ownership of industrial and commercial groups. The large insurance companies own large stakes in numerous industrial and commercial companies as well as controlling stakes in the major South African banks and building societies. The insurance groups also hold many strategic investments in individual companies, i.e. investments that exceed 20% of the capital of the invested company. In the case of Sanlam, these

have resulted from the traditional policy objective of encouraging the development of Afrikaner industry. In the case of Old Mutual, the strategic holdings are not linked to a specific active policy objective, although the group claims that its strategic holdings broadly earn the same kind of returns as its portfolio holdings.

The role of the two insurance groups is overshadowed only by the greater involvement in corporate governance of nonfinancial conglomerates, such as Anglo-American and De Beers. These mainly originate from the mining sector and have acquired their extensive interests in industrial and commercial companies in the process of diversification and as a result of government policies pursued over the past forty years or so. It is estimated that, together with the two insurance groups, four or five South African conglomerates are in direct or indirect, but effective, control of 80% of corporate assets¹⁷.

South African groups started to implement a policy of "unbundling" their controlling interests in the mid-1990s. These included both a disposal of shares by some of the secondary holding companies in the complex pyramidal structures that had previously been created and the closing down of some "intermediate level" holding companies. In this way, the groups gave up legal majority control in industrial companies, although they still retained effective management control through their large strategic holdings. The "unbundling" has been motivated by the desire to raise market values by eliminating the secondary holding companies (which traded at a discount to net asset value) and relying on the higher rating of "unbundled" companies. However, strategic holdings continue to be extensive and raise several policy issues concerning conflicts of interest and significant exposure to corporate risk.

¹⁷ Reported in Gerson (1992b).

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